National Aeronautics and Space Administration

IT Integration Strategy

Mike Hecker
NASA Associate CIO for Architecture and Infrastructure

NASA's IT Environment

Users
- 18,000 Employees
- 44,000 Contractors

Spending
- $2.2 B annually

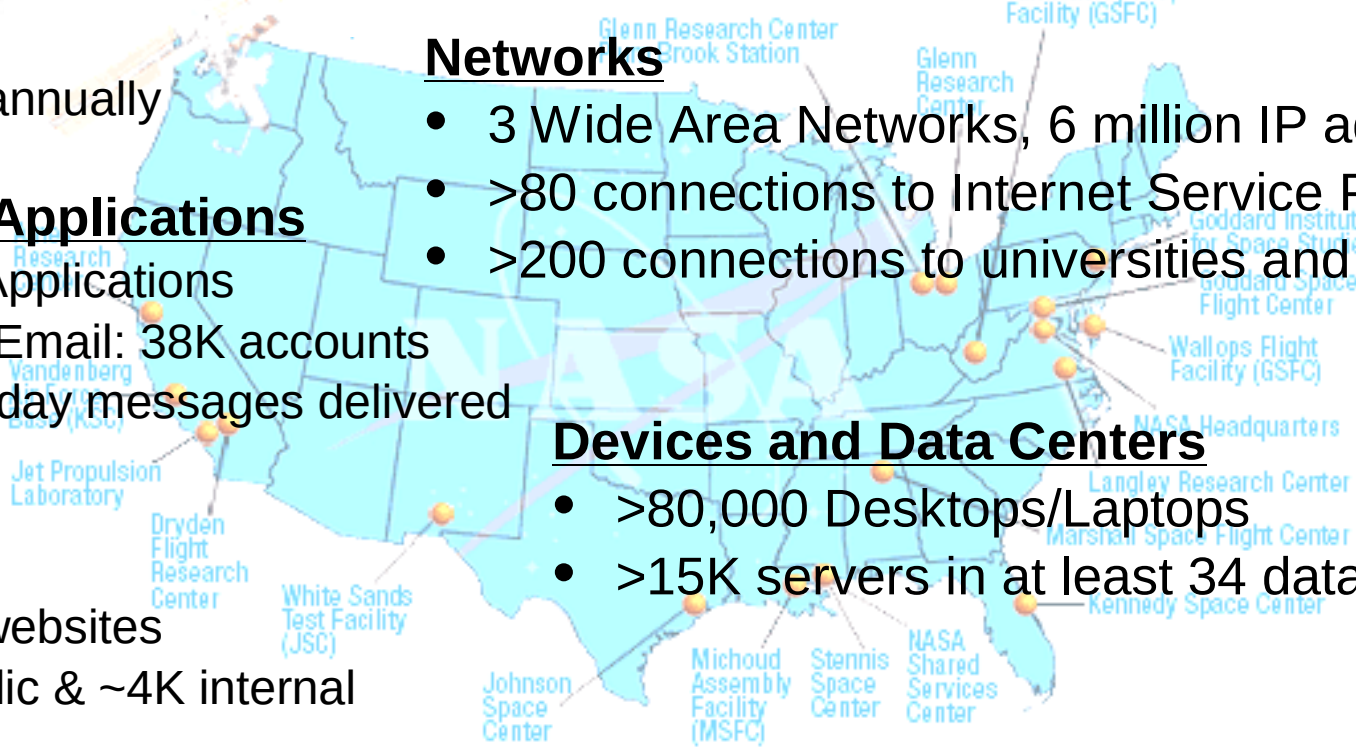
Systems/Applications
- > 2,500 Applications
- NOMAD Email: 38K accounts
  - 530K/day messages delivered

Websites
- >8,000 websites
- ~4K public & ~4K internal

NASA IT Workforce
- 667 FTE, 2,386 WYE managed by CIOs
- 1,167 C.S. positions w/ IT as primary competency

Networks
- 3 Wide Area Networks, 6 million IP addresses
- >80 connections to Internet Service Providers
- >200 connections to universities and partners

Devices and Data Centers
- >80,000 Desktops/Laptops
- >15K servers in at least 34 data centers



Infrastructure Integration Strategy

Business Challenge

- **NASA's IT infrastructure is implemented and managed in a fractured way that inhibits collaboration across NASA, increases complexity, is difficult to secure and drives excessive costs.**

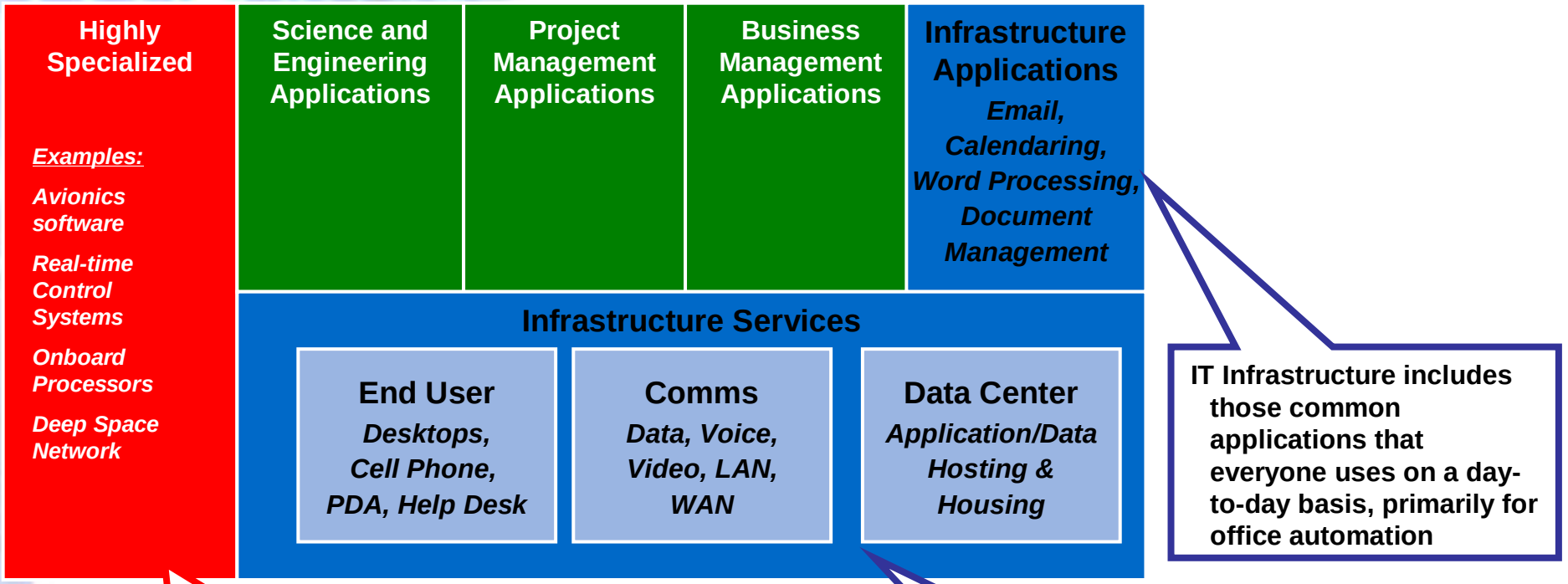
Recommendation

- **Clearly define that the CIO shall provide reliable and efficient infrastructure services**
- **Standardize and consolidate infrastructure to provide end-to-end visibility, reduce costs and enable collaboration**

Results/Benefits

- **Seamless IT infrastructure that enables collaboration**
- **Significant reduction in operating costs**
- **Reduced complexity for managing IT services across the Agency**
- **Improved IT security**

NASA's IT Integration



IT Infrastructure includes those common applications that everyone uses on a day-to-day basis, primarily for office automation

IT that is an embedded component of a flight system, experiment, simulator, ground support environment, or mission control center. Does not necessarily include the IT infrastructure that supports those embedded components.

IT Infrastructure includes the services and hardware for End User Devices, Communications, and Data Centers

NASA Agency-wide Procurements

	NASA Integrated Communications Services (NICS)	Enterprise Applications Service Technologies (EAST)	Agency Consolidated End User Services (ACES)	Web Enterprise Service Technologies (WEST)	NASA Enterprise Data Center (NEDC)
Scope	Data, Voice, Video, Network Operations	Enterprise Applications Services	Desktops, Cell Phones, PDAs, Email, Calendering	Public Website Hosting, Agency Web Applications	Applications/Data Hosting and Housing
Procurement Lead	MSFC	MSFC	NSSC	HQ/GSFC	KSC
Contract Type	In Development	In Development	In Development	In Development	In Development
Contract Length	In Development	In Development	In Development	In Development	In Development
Estimated Value	Large	Medium	Large	Small	Medium
Small Business Goals	In Development	In Development	In Development	In Development	In Development

- With Move to Agency-wide Contracts, Goal is to Maintain Level of Work Performed by Small Business
- Details Available in December Time Frame, Draft RFPs will be Released for Comment after the Holidays
- Outside of Agency-wide Contracts, Small Business Opportunities Still Exist for Center-specific Work

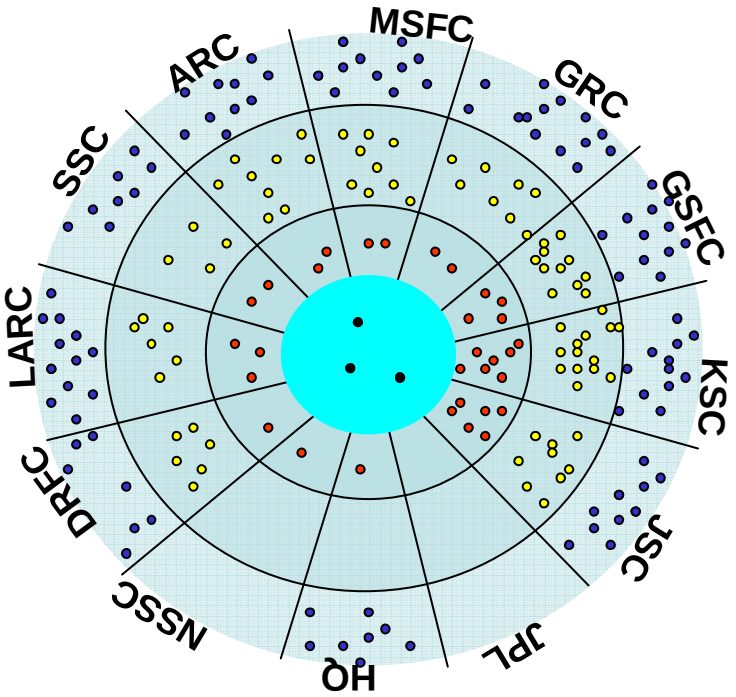
National Aeronautics and Space Administration

NASA Enterprise Data Center (NEDC)

Mike Bolger
KSC CIO

Data Center
"As-Is" Architecture

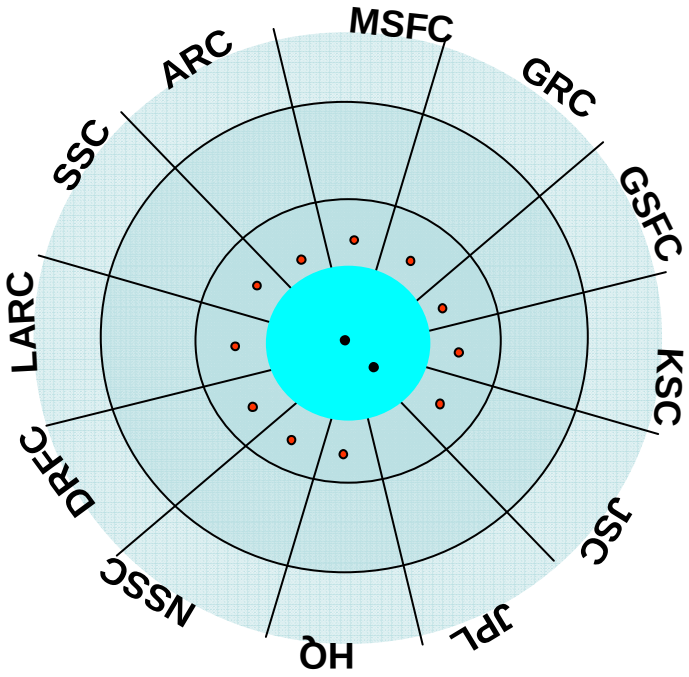
- Current State and Gaps
  - 3 Data Centers Managed by Agency
  - 75 Total Data Centers
  - 15,000 servers spread across NASA
  - 4,500 Hosted Applications
  - Large Capital Investment Required to Upgrade In-House Data-Centers
  - Availability and Disaster Recovery Inconsistent Between Data Centers



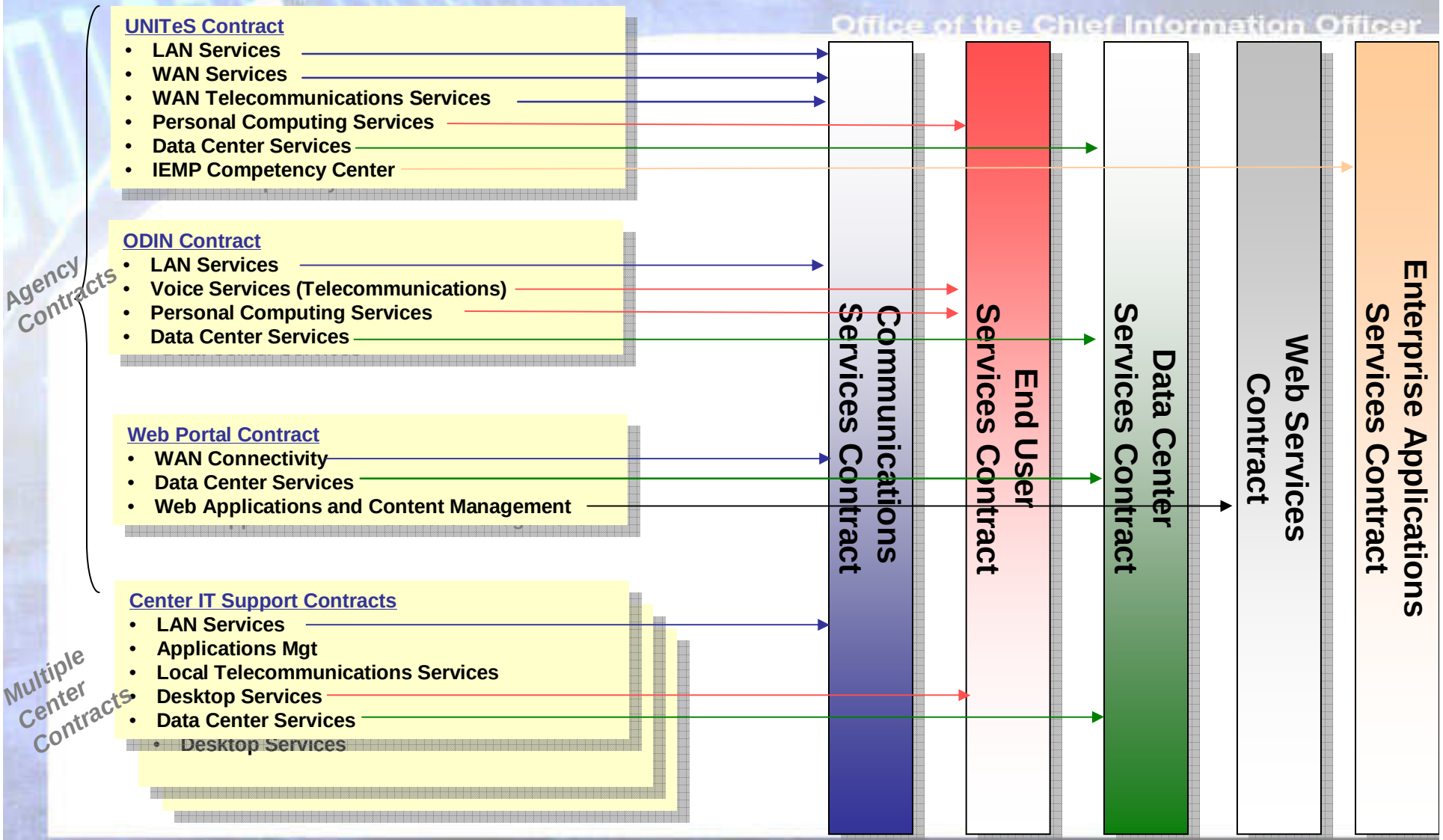
Data Center

"To-Be" and Transition Strategy

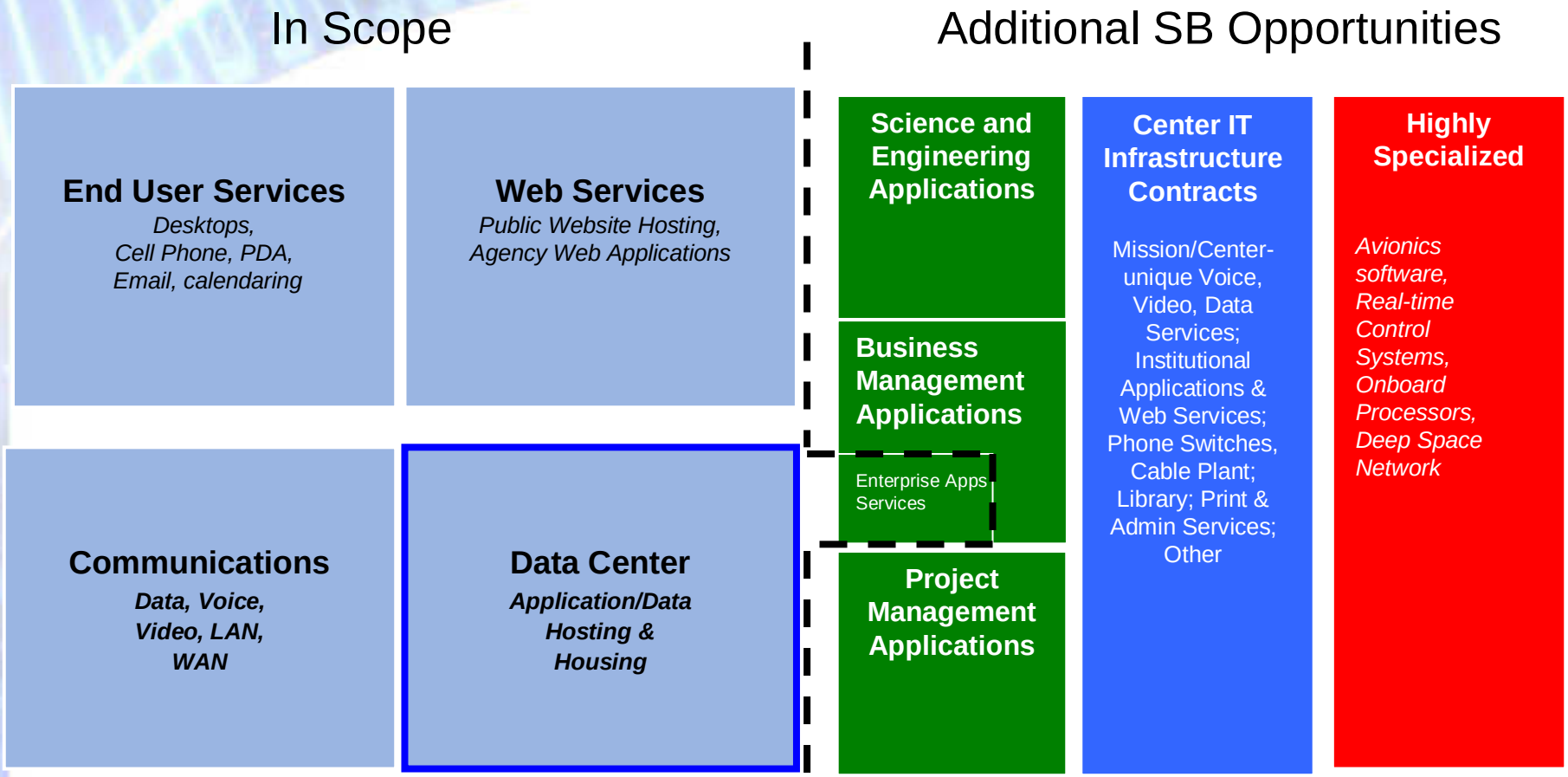
- Target State
  - Commercial Enterprise Data Center
  - One Small Data Center at Each NASA Center
  - Integrate Services Across the Agency
- FY08-09
  - Acquisition Planning and Execution
  - Establish Program Office
  - Migration and Transition Planning
- FY10
  - Begin transition of Agency-wide Applications
  - Centers Consolidate Locally
  - First wave of Center Data Center Transitions
- FY11-14
  - Transition Other Agency-wide Applications
  - Centers Continue to Consolidate Locally
  - Follow-on waves of Center Data Center Transitions
  - Migration to commercially outsourced Data Center



I3P Contract Evolution



I³P Acquisition Scope



National Aeronautics and Space Administration

NASA Johnson Space Center
Small Business Opportunities in the CIO Office

Larry N. Sweet
JSC CIO

JSC Information and Multi-Media Services (JIMMS)

- Provides General Customer Support, Applications Services, Information Management, Writing, Editing and Graphics Services, Multimedia Engineering, Installation, Maintenance and Operations, Public Affairs, Multimedia Services, External Relations, Information and Communications, and Education Support Services.
- Prime Contractor: **Tessada and Associates**
- Key Subcontractor: InDyne, Inc.
- Period of Performance: Sept. 1, 2004 – August 31, 2007
- Contract Type: Cost Plus Award Fee (CPAF)
  - IDIQ with the task orders
- Option1: September 1, 2007 – August 31, 2008 ($35M)
- Option2: September 1, 2008 – August 31, 2009 ($35M)

JSC Enabling Technology and Security (JETS)

- Provides engineering tasks involving computer hardware and software. These tasks include system administration, data backup and system performance monitoring. Also provides for network security and monitor network traffic for security concerns. Performs technical assessments and security testing, as well as develop and update JSC Information Technology Certification and Accreditation of security plans.
- Prime Contractor: **MEI Technologies, Inc.**
- Key Subcontractors: N/A
- Period of Performance: Sept. 1, 2004 – Nov. 30, 2008 ($30M)
- Contract Type: Cost Plus Award Fee (CPAF) and IDIQ with the task orders
- Options: 3-December 1, 2008-August 31, 2009 ($5M)

Printing and Mail Support Services (PAMSS)

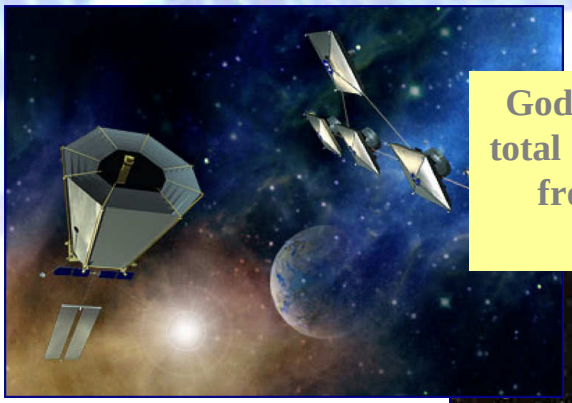
- Provides on-site printing and duplication services including Government Printing Office (GPO) coordination and processing for JSC. Also provides hard-copy mail services pick-up, processing and delivery.
- Prime Contractor: **GeoControl Systems Inc.**
- Key Subcontractors: 4W Solutions
- Period of Performance: May 4, 2004 – May 2, 2008 $3.5M)
- Contract Type: HUB Zone, Fixed Price Award Fee (FPAF) and Indefinite-Delivery Indefinite-Quantity (IDIQ)
- Option 1: May 3 2006 - May 2, 2007 ($1.75M)
- Option 2: May 3 2007 - May 2, 2008 ($1.76M)
- Option 3: May 3 2008 - May 2, 2009 ($1.77M)

National Aeronautics and Space Administration

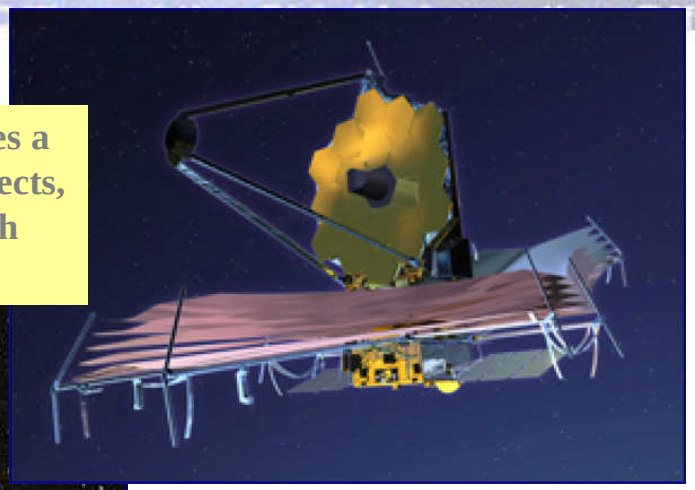
NASA Goddard Space Flight Center
Small Business Opportunities in the CIO Office

Mark Walther
GSFC Deputy CIO

The Goddard Mission



Goddard currently manages a total of nearly 80 flight projects, from formulation through operations



The mission of the Goddard Space Flight Center is to expand knowledge of the Earth and its environment, the solar system and the universe through observations from space.

To assure that our nation maintains leadership in this endeavor, we are committed to excellence in scientific investigation, in the development and operation of space systems and in the advancement of essential technologies.

Sourcing Opportunities: Supply AND Demand

- **Supply (the CIO as a product and service provider)**
  - **Sourced primarily through I3P, GUEST, and SEWP**
    - ✓**SEWP is an existing government-wide acquisition contract for IT products (http://www.sewp.nasa.gov/)**
- **Demand (the CIO as a business partner and planner)**
  - **Sourced through HOEST**

Goddard Unified Enterprise Services and Technology (GUEST)

- 8a Set Aside and proposals have been received
- All questions should be directed to:
  - LaShawn K Davis, Contracting Officer
  - 301-286-1697
  - Email: Lashawn.K.Davis@nasa.gov

Helping to Optimize Enterprise Strategies and Technology (HOEST) (2009)

- **Procurement strategy has not been finalized. Technical scope expected to include:**
  - **-- EA planning and support**
  - **-- PMO operational and administrative support**
  - **-- IT Governance guidance and administrative support**
  - **-- IT Security planning, support, auditing, and compliance monitoring**
  - **-- Sourcing strategy guidance and support**
  - **-- IT Workforce strategy & development support**
  - **-- Change management planning and implementation support**

Helping to Optimize Enterprise Strategies and Technology (HOEST) (2009)

- **Beginning in January 2009, for more information, please contact:**

GSFC CIO Requirements Formulation Manager:

- **Paul E. Hunter**
- **301-286-9669**
- **Email: paul.e.hunter@nasa.gov**

GSFC Contracting Officer:

- **Darlene E. Coen**
- **301-286-1340**
- **Email: darlene.e.coen@nasa.gov**

Value Proposition for a Growing Business

- **Strengths**
  - **Flexible**
  - **Customizable solutions**
  - **Responsive**
- **Challenges**
  - **Corporate reach back**
  - **Bench strength**
- **Opportunities**
  - **Ability to develop relationships that promote understanding of business problems**
  - **Ability to customize for the customer**
  - **Agility during times of change**